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L5 ANSWER 1 OF 78 EUROPATFULL COPYRIGHT 2001 WILA

GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

ACCESSION NUMBER: 808111 EUROPATFULL EW 199935 FS PS
TITLE: A LOW **PHOSPHORUS** ANIMAL **FEED**
CONTAINING 1 -ALPHA- HYDROXYLATED VITAMIN D COMPOUNDS.
1-ALPHA-HYDROXY-VITAMIN D - VERBINDUNGEN ENTHALTENDES
TIERFUTTER MIT NIEDRIGEM **PHOSPHORGEHALT**.
ALIMENT POUR ANIMAUX A FAIBLE TENEUR EN
PHOSPHORE CONTENANT DES COMPOSES DE LA VITAMINE
D 1-ALPHA-HYDROXYLES.

INVENTOR(S): **DELUCA, Hector, F.**, 1809
Highway BB, Deerfield, WI 53531, US;
BAKER, David, H., 2313 Brookshire West, Champaign, IL
61821, US

PATENT ASSIGNEE(S): WISCONSIN ALUMNI RESEARCH FOUNDATION, 614 North Walnut
Street, Madison, WI 53705, US

PATENT ASSIGNEE NO: 319660
AGENT: Ellis-Jones, Patrick George Armine, J.A. KEMP & CO. 14
South Square Gray's Inn, London WC1R 5LX, GB

AGENT NUMBER: 30442
OTHER SOURCE: EPB1999050 EP 0808111 B1 990901
SOURCE: Wila-EPS-1999-H35-T3
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R
IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PATENT INFO.PUB.TYPE: EPB1 EUROPAEISCHE PATENTSCHRIFT (Internationale
Anmeldung)

PATENT INFORMATION:

	PATENT NO	KIND DATE
'OFFENLEGUNGS' DATE:	EP 808111	B1 19990901
APPLICATION INFO.:	EP 1996-903676	19971126
PRIORITY APPLN. INFO.:	US 1995-383952	19960129
RELATED DOC. INFO.:	WO 96-US1021	19950206
	WO 9624258	960129 INTAKZ
		960815 INTPNR
REFERENCE PAT. INFO.:	EP 383116 A	WO 93-19759 A
REF. NON-PATENT-LIT.:	ZEITSCHRIFT FUEr VERSUCHSTIERKUNDE, vol. 27, no. 3/4, 1985, pages 163-168, XP002001500 ERLING TVEDEGAARD: "Absorption of calcium, magnesium and phosphate during chronic renal failure and the effect of vitamin D in rabbits" JOURNAL OF NUTRITION, vol. 125, no. 9, 1995, pages 2407-2419, XP002001501 ROBERT R. BIEHL ET AL.: "1-alpha-hydroxylated cholecalciferol compounds act additively with microbial phytase to improve phosphorus, zinc and manganese utilization in chicks fed soy-based diets" cited in the application POULTRY SCIENCE, vol. 73, no. 8, 1994, pages 1312-1326, XP002001502 KEVIN D. ROBERSON ET AL.: "Effects of 1,25- dihydroxycholecalciferol and phytase on zinc utilization in broiler chicks" POULTRY SCIENCE, vol. 69, no. 3,	

1990, pages 426-432, XP002001503 R.H. HARMS ET AL.:
"Some observations on the influence of vitamin D
metabolites when added to the diet of commercial laying
hens" JOURNAL OF DAIRY SCIENCE, vol. 65, no. 10, 1982,
CHAPAIN, ILLINOIS US, pages 1934-1940, XP002001504 K.
HOVE ET AL.: "Prevention of parturient hypocalcemia:
effect of a single oral dose of 1,25-dihydroxyvitamin
D3" POULTRY SCIENCE, vol. 74, no. 1, 1995, pages
121-126, XP002001505 SEIJI AOYAGI ET AL.: "Effect of
microbial phytase and 1,25-dihydroxycholecalciferol on
dietary copper utilization in chicks"

L5 ANSWER 5 OF 78 EUROPATFULL COPYRIGHT 2001 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 549367 EUROPATFULL EW 199326 FS OS STA B
TITLE: Method of treating milk fever disease in dairy cattle.
Verwendung von Vitamin-D-Derivaten und von
Kalziumzusatz zur Behandlung des Milchfiebers.

Utilisation de derives de la vitamine D et de
supplement, de calcium pour le traitement de la fievre
de lactation.
INVENTOR(S): DeLuca, Hector Floyd, 1809
Highway BB, Deerfield, Wisconsin 53531, US;
Hodnett, Dean William, 2029 9th St. Apt. 3, Coralville,
Iowa 52241, US;
Jorgensen, Neal Albert, 5979 Woodcreek Lane, Middleton,
Wisconsin 53562, US
PATENT ASSIGNEE(S): WISCONSIN ALUMNI RESEARCH FOUNDATION, 614 North Walnut
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53707-7365, US
PATENT ASSIGNEE NO: 319662
AGENT: Ellis-Jones, Patrick George Armine, J.A. KEMP & CO. 14
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AGENT NUMBER: 30442
OTHER SOURCE: ESP1993045 EP 0549367 A1 930630
SOURCE: Wila-EPZ-1993-H26-T1b
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R BE; R CH; R DE; R DK; R ES; R FR; R GB; R LI; R NL
PATENT INFO.PUB.TYPE: EPA1 EUROPAEISCHE PATENTANMELDUNG
PATENT INFORMATION:

	PATENT NO	KIND DATE
	EP 549367	A1 19930630
'OFFENLEGUNGS' DATE:		19930630
APPLICATION INFO.:	EP 1992-311816	19921224
PRIORITY APPLN. INFO.:	US 1991-814368	19911226

L5 ANSWER 12 OF 78 PCTFULL COPYRIGHT 2001 MicroPatent
ACCESSION NUMBER: 1996024258 PCTFULL
TITLE (ENGLISH): A LOW PHOSPHORUS ANIMAL FEED
CONTAINING 1'alpha'-HYDROXYLATED
VITAMIN D COMPOUNDS
TITLE (FRENCH): ALIMENT POUR ANIMAUX A FAIBLE TENEUR EN
PHOSPHORE CONTENANT DES
COMPOSES DE LA VITAMINE D 1'alpha'-HYDROXYLES

INVENTOR(S): DELUCA, Hector, F.; BAKER, David, H.
PATENT ASSIGNEE(S): WISCONSIN ALUMNI RESEARCH FOUNDATION
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
	WO 9624258	A1	19960815
DESIGNATED STATES:	AL AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KZ LK LR LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ UA UG UZ VN KE LS MW SD SZ UG AZ BY KG KZ RU TJ TM AT BE CH DE DK ES FR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG		

APPLICATION INFO.: WO 1996-US1021 19960129
PRIORITY (ORIGINAL): US 1995-8/383952 19950206

ABEN An animal **feed** containing 1 'alpha'-hydroxylated vitamin D compounds. The vitamin D compounds cause improved utilization of **phosphorus**, calcium, potassium, magnesium, zinc, iron and manganese in

animal **feed** so as to minimize, or perhaps eliminate, the need for supplemental quantities of these minerals in an animal diet. In addition,

low **phosphorus** containing animal **feeds** reduce the polluting effects on the environment since less **phosphorus** is excreted in the animal's feces which are then spread on agricultural land.

ABF L'invention concerne un aliment pour animaux contenant des composés de la vitamine D l'alpha' hydroxyles. Ces composés de la vitamine D provoquent une amélioration de l'utilisation du **phosphore**, du calcium, du potassium, du magnésium, du zinc, du fer et du manganèse, ce qui permet de diminuer, voire supprimer l'addition de ces substances minérales aux aliments pour animaux. En outre, des aliments pour animaux à faible teneur en **phosphore** diminuent la pollution de l'environnement normalement associée au **phosphore** contenu dans les déjections, qui sont répandues sur les terrains agricoles.

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ACCESSION NUMBER: 1999:92343 USPATFULL

TITLE: Low **phosphorus** animal **feed** containing 1.alpha.-hydroxylated vitamin D compounds and method of preparing

INVENTOR(S): DeLuca, Hector F., Deerfield, WI, United States

Baker, David H., Champaign, IL, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)
Board of Trustees of the University of Illinois, Urbana, IL, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5935624		19990810

APPLICATION INFO.: US 1997-969295 19971113 (8)
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1996-757448, filed
on 27 Nov 1996, now abandoned which is a continuation
of Ser. No. US 1995-452847, filed on 30 May 1995, now
abandoned which is a division of Ser. No. US
1995-383952, filed on 6 Feb 1995, now abandoned
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Corbin, Arthur L.
LEGAL REPRESENTATIVE: Andrus, Sceales, Starke & Sawall
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
LINE COUNT: 803

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An animal **feed**, preferably a poultry **feed**,
containing an 1.alpha.-hydroxylated vitamin D compound. The vitamin D
compound causes improved utilization of **phosphorus**, calcium,
potassium, magnesium, zinc, iron and manganese available from inorganic
sources in animal **feed** so as to minimize, or perhaps
eliminate, the need for supplemental quantities of these minerals in an
animal diet.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 64 OF 78 USPATFULL

ACCESSION NUMBER: 82:32741 USPATFULL
TITLE: Method for preventing parturient paresis in dairy
cattle
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Madison, WI, United States
Jorgensen, Neal A., Middleton, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4338312		19820706
APPLICATION INFO.:	US 1981-262093		19810511 (6)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
LINE COUNT:	201		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for prophylactically treating dairy cattle for parturient
paresis by administering to the cattle a 25-hydroxylated vitamin D
compound and a 1.alpha.-hydroxylated vitamin D compound in combination
in an amount sufficient to induce said prophylaxis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 65 OF 78 USPATFULL

ACCESSION NUMBER: 81:69422 USPATFULL
TITLE: 1.alpha., 25-dihydroxy-2.beta.-fluorovitamin D.sub.3
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Madison, WI, United States
Ikekawa, Nobuo, Musashinoshi, Japan
Tanaka, Yoko, Madison, WI, United States

PATENT ASSIGNEE(S):

Morisaki, Masuo, Tokyo, Japan
Oshida, Jun-ichi, Tokyo, Japan
Wisconsin Alumni Research Foundation, Madison, WI,
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4307025		19811222
APPLICATION INFO.:	US 1981-235262		19810217 (6)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
LINE COUNT:	218		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides new derivatives of vitamin D.sub.3,
specifically,

1.alpha.,25-dihydroxy-2.beta.-fluorocholecalciferol.

The compound is characterized by vitamin D-like activity as measured by its ability to stimulate intestinal calcium transport, mobilization of calcium from bone, increase serum inorganic phosphorous and in their antirachitic activity. The compound, could, therefore, find ready application as a substitute for vitamin D in its various known applications and in the treatment of various metabolic bone diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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ACCESSION NUMBER: 80:49750 USPATFULL
TITLE: 24,24-Difluoro-1.alpha.,25-dihydroxycholecalciferol
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Madison, WI, United States
Ikekawa, Nobuo, Tokyo, Japan
Tanaka, Yoko, Madison, WI, United States
Kobayashi, Yoshiro, Tokyo, Japan
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI,
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4226788		19801007
APPLICATION INFO.:	US 1979-64254		19790806 (6)
RELATED APPLN. INFO.:	Division of Ser. No. US 1979-24848, filed on 28 Mar 1979, now abandoned		
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	1		
EXEMPLARY CLAIM:	1		
LINE COUNT:	353		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides new derivatives of vitamin D,
24,24-difluoro-1.alpha.,25-dihydroxycholecalciferol and
24,24-difluoro-1.alpha.,25-dihydroxy-5,6-trans-cholecalciferol and
processes for preparing the same.

The compounds are characterized by vitamin D-like activity essentially equivalent to the vitamin D-like activity of 1.alpha.,25-dihydrocholecalciferol which is considered to be the hormonal form and most active derivative of vitamin D. The compounds of this invention are characterized by their ability to increase intestinal calcium transport, increase serum calcium and to prevent the development of rickets. These compounds would find ready application as a substitute for vitamin D and in the treatment of disease states evincing metabolic calcium and phosphorus deficiencies.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 77 OF 78 USPATFULL
ACCESSION NUMBER: 78:47401 USPATFULL
TITLE: Method of treating milk fever in dairy cattle with 1,25-dihydroxycholecalciferol
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Jorgensen, Neal A., Middleton, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4110446		19780829
APPLICATION INFO.:	US 1977-815587		19770714 (5)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Rosen, Sam		
LEGAL REPRESENTATIVE:	Bremer, Howard W.		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1,6		
LINE COUNT:	392		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treatment and prophylaxis for milk fever in dairy cattle which comprises administering 1,25-dihydroxycholecalciferol to the cattle.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 78 OF 78 USPATFULL
ACCESSION NUMBER: 73:27700 USPATFULL
TITLE: 1.alpha.-HYDROXYCHOLECALCIFEROL
INVENTOR(S): DeLuca, Hector F., Madison, WI, United States
Schnoes, Heinrich K., Waunakee, WI, United States
Holick, Michael F., Madison, WI, United States
Semmler, Erich J., Madison, WI, United States
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3741996		19730626
APPLICATION INFO.:	US 1971-204305		19711202 (5)
DOCUMENT TYPE:	Utility		
PRIMARY EXAMINER:	Roberts, Elbert L.		
LEGAL REPRESENTATIVE:	Bremer; Howard W.		

NUMBER OF CLAIMS: 2

LINE COUNT: 319

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB 1.alpha.-hydroxycholecalciferol and method for preparing the same. The compound is characterized by antirachitic and other vitamin D-like activity and finds application in situations where vitamin D is now being used.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.